

REMARKS

Claims 1 – 13 and 15 – 18 are pending in the present Application. Claims 8 and 15 have been canceled, claims 1, 3, and 5-6 have been amended, leaving claims 1-7, 9-13, and 16-18 for consideration upon entry of the present Amendment.

The specification and claim 6 has been amended to correct a typographical error. Particularly the structure of (XIV) has been corrected to show the carbonate moiety. Support for this amendment can at least be found in Paragraph [0033] and Examples 1 and 2 of the Specification as originally filed.

Claim 1 has been amended to contain the language that the organic polymer comprises a resorcinol arylate copolyestercarbonate or a blend of resorcinol arylate polyester and a polycarbonate. Claim 1 has also been amended to contain the language “wherein the irradiating produces a pattern in the film.” Support for these amendments can at least be found in claims 8 and 15 as originally filed and Paragraph [0009] of the Specification as originally filed. The preamble of claim 1 has been further amended to clarify the method of the invention. Support for the amendment can be found in the Title and Paragraph [0001] of the Specification as originally filed.

Claims 3 and 5 have been amended to correct a typographical error

No new matter has been introduced by these amendments. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Elections/Restrictions

The claims of the present application are subject to the following restriction:

Group I, claims 1 – 13 and 15 – 18, drawn to a method of exposing a resorcinol arylate polyester to light having a wavelength of 290-400 nanometers at a power of 1 – 20 mW/cm².

Group II, claims 19 – 23, drawn to imaged articles in resorcinol arylate polyesters.

Applicants hereby elect Group I, claims 1 – 13 and 15 – 18 and withdraw claims 19 – 23.

Claim Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 1-13 and 16-18 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, it is alleged that the claims read on a uniform exposure of the entire film. Independent claim 1 has been amended to contain the language “wherein the irradiating produces a pattern in the film” thereby making it clear that the film contains both irradiated portions and portions unexposed to radiation. Reconsideration and withdrawal of this rejection are respectfully requested.

Claim Rejections Under 35 U.S.C. § 102(b)

Claims 1-7, 10, 11, 13 and 16-18 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by U.S. Patent No. 5,916,997 to Webb et al. (“Webb”). Claims 1-7, 9-13 and 16-18 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by Cohen et al. “Transparent ultraviolet-barrier coating”, J. Polymer Sci. Pt A-1 Vol.9 pp. 3263-3299 (1971) (“Cohen”). Applicants respectfully traverse this rejection.

To anticipate a claim, a reference must disclose each and every element of the claim. *Lewmar Marine v. Variant Inc.*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987).

Independent claim 1, as amended, requires the irradiating step to form a pattern in the film. Neither Webb nor Cohen teaches the required limitation of forming a pattern in the film. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Claim Rejections Under 35 U.S.C. § 102(e)

Claims 1-8, 10, 11, 13 and 16-18 stand rejected under 35 U.S.C. § 102(e), as allegedly anticipated by U.S. Patent No. 6,559,270 to Siclovan et al. (“Siclovan”). Claims 1-8, 10-14 and 16-18 stand rejected under 35 U.S.C. § 102(e), as allegedly anticipated by U.S. Patent No. 6,417,253 to Shakhnovich (“Shakhnovich”). Applicants respectfully traverse this rejection.

Independent claim 1, as amended, requires the irradiating step to form a pattern in the film. Neither Siclovan nor Shakhnovich teaches this required limitation. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-13 and 15-18 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over U.S. Patent No. 5,128,223 to Gillberg-LaForce et al. ("Gillberg-LaForce") in view of Cohen. Claims 1-13 and 15-18 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Gillberg-LaForce in view of either Webb or Siclovan combined with Cohen, further in view of the English abstract of JP 63-287986 to Kuwayama et al. ("Kuwayama"). Applicants respectfully traverse this rejection.

Gillberg-LaForce generally discloses direct imaging a holographic composition film of polyphenyl acrylate polymer. The reference, however, does not teach or suggest an organic polymer that comprises a resorcinol arylate copolyestercarbonate or a blend of resorcinol arylate polyester and a polycarbonate.

Webb generally discloses weatherable polyester soft block copolymer compositions comprising copolymers of resorcinol or alternatively phenol, aromatic dicarboxylic acid, and an aliphatic dicarboxylic acid based structural units. The materials disclosed are said to have improved weatherability, especially low yellowing. There is no indication from Webb that such materials can be used for data storage media.

Siclovan is generally directed to weatherable block copolyestercarbonates and blends. The material is disclosed as having improved weatherability i.e. retention of gloss. There is no indication from Siclovan that such materials can be used for data storage media.

Cohen generally discloses resorcinol arylates that are used as UV-barrier coatings. There is no indication from Cohen that such materials can be used for data storage media.

Kuwayama generally discloses a hologram grating to obtain a hologram which does not yellow over a long period of time. The reference, however, does not teach or suggest an organic polymer that comprises a resorcinol arylate copolyestercarbonate or a blend of resorcinol arylate polyester and a polycarbonate.

Claim 1, as amended, generally is a method for photoaddressing data storage media comprising providing a film comprising an organic polymer that comprises a resorcinol arylate copolyestercarbonate or a blend of resorcinol arylate polyester and a polycarbonate; irradiating at least a portion of the film with a UV beam wherein the irradiating produces a difference in

refractive index between an irradiated portion and an unirradiated portion of the film to produce a pattern in the film.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness, i.e., that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Claim 1 requires the film to comprise a resorcinol arylate copolyestercarbonate or a blend of resorcinol arylate polyester and a polycarbonate; and further requires irradiating the film to produce a pattern.

Although Gillberg-LaForce does disclose imaging particular polyphenyl acylate polymers to form holograms, the reference does not teach or suggest an organic polymer that comprises a resorcinol arylate copolyestercarbonate or a blend of resorcinol arylate polyester and a polycarbonate. There is no teaching or suggestion by Gillberg-LaForce that the claimed copolymers or blends are suitable for photoaddressing data storage media. There would be no expectation that such a copolymer would be suitable to provide the required pattern upon irradiating. The pattern is made due to the different refractive indices between the irradiated portions and the portions not exposed to radiation. Even though polycarbonate undergoes photo-Fries rearrangement, it is not taught or suggested by Gillberg-LaForce that the resulting reaction would provide a pattern suitable for preparing holographic images suitable for photoaddressing data storage media.

None of the other references teach or suggest imaging acylate polymers to photoaddress for information storage. Cohen also does not disclose the particular polymers required by claim 1. While Webb and Siclovan generally disclose polymers that can undergo a Fries rearrangement reaction, neither one of them teach or suggest the suitability of such materials for photoaddressing for information storage. Webb and Siclovan are generally directed to

weatherable polymers capable of withstanding weathering conditions without yellowing or losing gloss. Typical weathering conditions include general UV exposure from the sun. Such a broad range of radiation is contrary to the irradiation used in the direct imaging process disclosed in Gillberg-LaForce:

The photo-Fries reaction is susceptible to ultraviolet irradiation, but for purposes of forming a hologram it is necessary to utilize a coherent light beam of the type provided by rare gas-halide lasers. . .and other coherent light sources. . .

(Gillberg-LaForce, column 4, lines 11-17) Thus, one of ordinary skill in the art looking to Gillberg-LaForce for guidance would not be motivated to use the weatherable polymers of Webb or Siclovan in direct imaging processes for information storage as these materials are used for different purposes.

Claims 4-5 require the resorcinol arylate polyester to have the structure according to formula (XIII). These particular polyesters are neither taught nor suggested by any of the references. As each and every limitation of the invention is not disclosed in the cited references, a prima facie case of obviousness has not been established.

Claim 6 requires the resorcinol arylate polyester to be a copolyester carbonate of structure (XIV). Gillberg-LaForce does not teach or suggest holographic compositions, which are copolyester carbonates, can be suitable for preparing holographic imaging compositions for data storage media. There would be no expectation that such a copolymer would be suitable to provide the required pattern of claim 6 upon irradiating. The pattern is made due to the different refractive indices between the irradiated portions and the portions not exposed to radiation. Even though polycarbonate undergoes photo-Fries rearrangement, it is not taught or suggested by Gillberg-LaForce that the resulting reaction would provide a pattern suitable for preparing holographic images. None of the other references provide the missing teaching of a copolyester carbonate suitable for use in data storage media via irradiation of portions of a film to form a pattern.

Reconsideration and withdrawal of this rejection are respectfully requested.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and withdrawal of the rejections and allowance of the case are respectfully requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 07-0868.

Respectfully submitted,

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